



THE HANFORD SITE

100K Area Remediation

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Signs of heat stress/exhaustion:

- High body temperature
- Lack of sweat
- Muscle cramps
- Confusion or trouble walking
- Elevated heart rate
- Skin redness

Objective of the briefing:

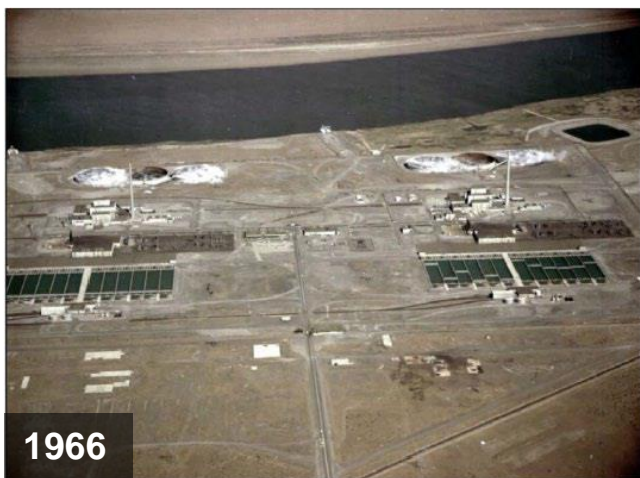
- Provide update on 100K Area remediation activities

What is being briefed:

- 105KW Basin deactivation
- KE Secure Safe Enclosure
- KE Demolition
- Soil Remediation

What do we want the HAB to do with this information:

- The information is an update on the deactivation, remediation, and eventual Safe Storage Enclosure of the last reactors in the 100 Area



K East (KE) and K West (KW) Reactors operated from 1955-1971



K West sedimentation basin removed, and KE fuel storage basin removed

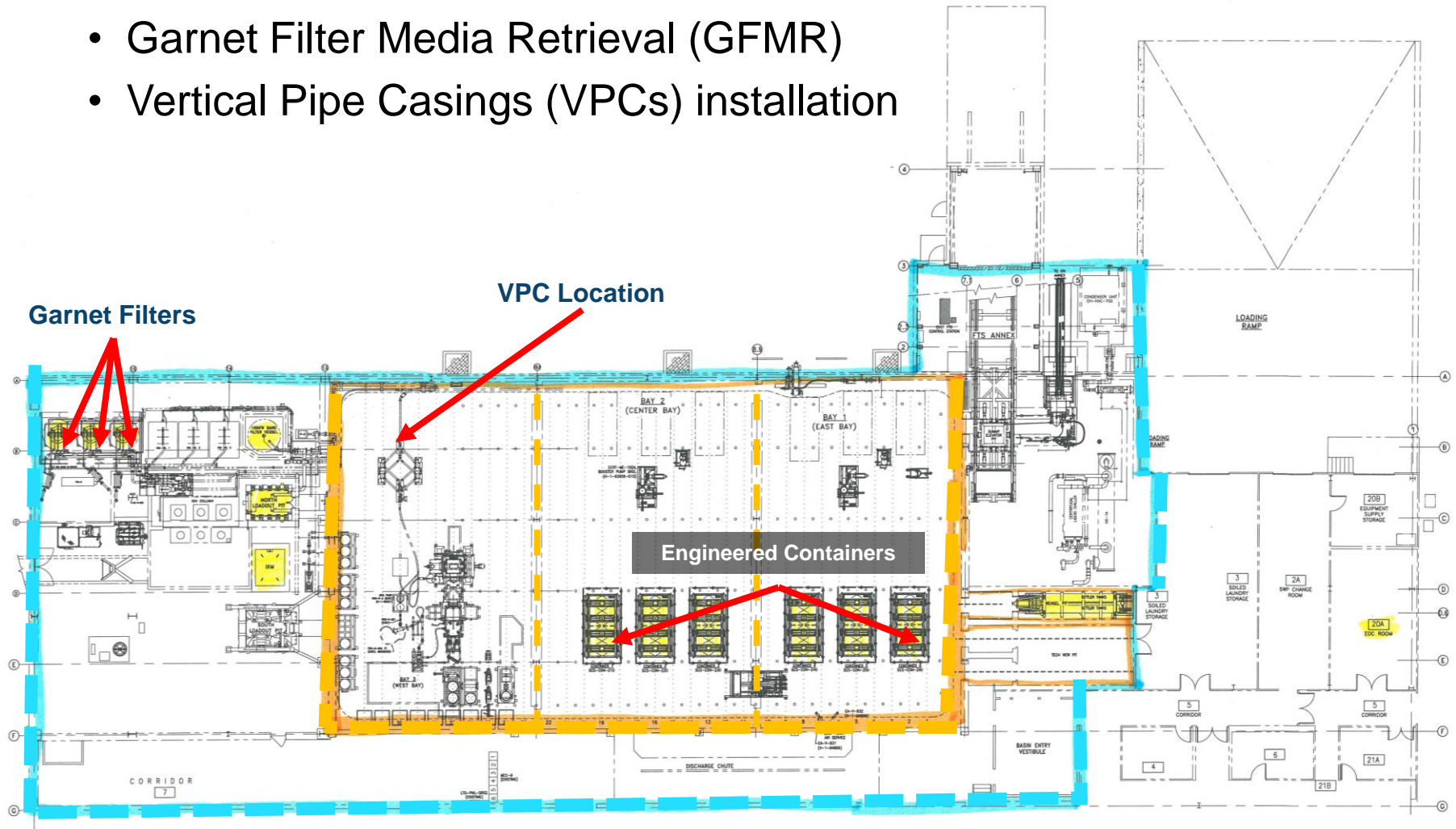


Sludge removed from the engineered containers and transported to T Plant



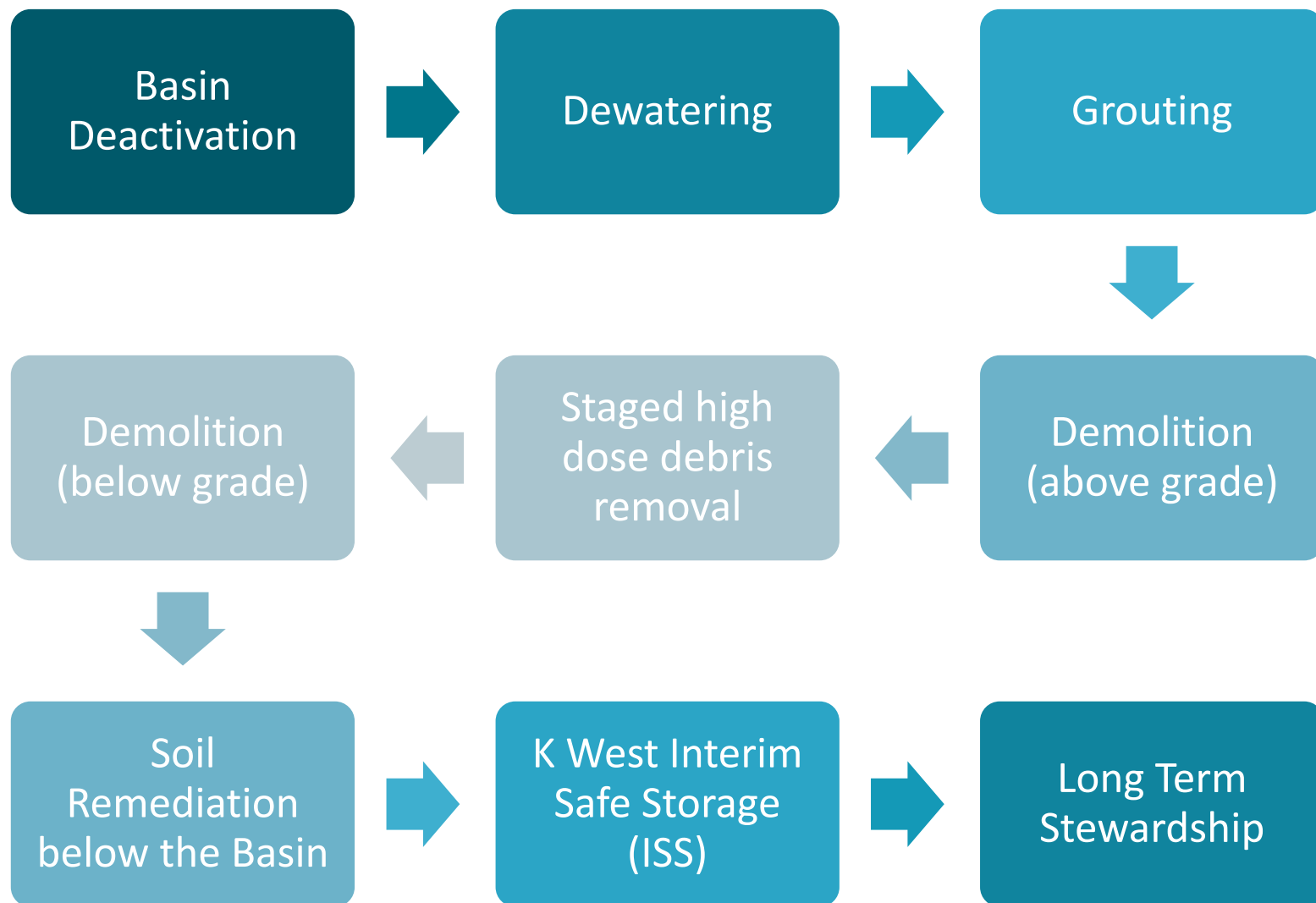
K East soil remediation progress

- Garnet Filter Media Retrieval (GFMR)
- Vertical Pipe Casings (VPCs) installation

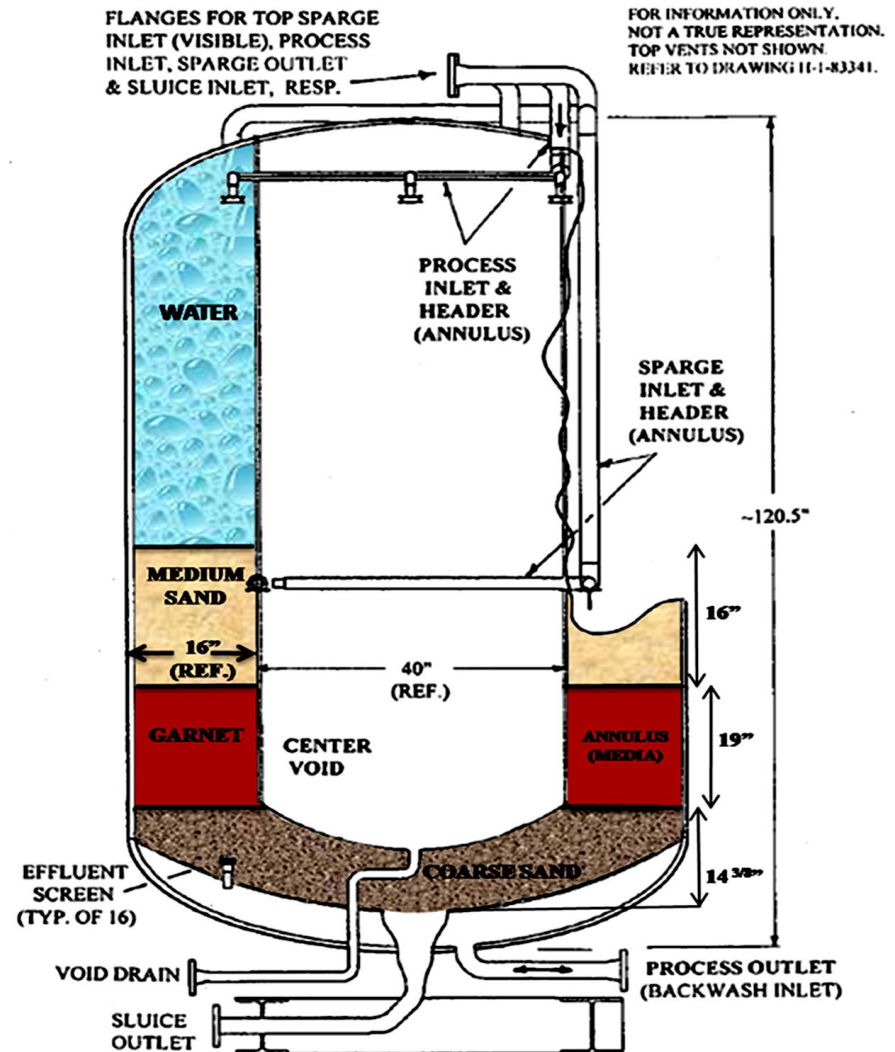


105KW Basin

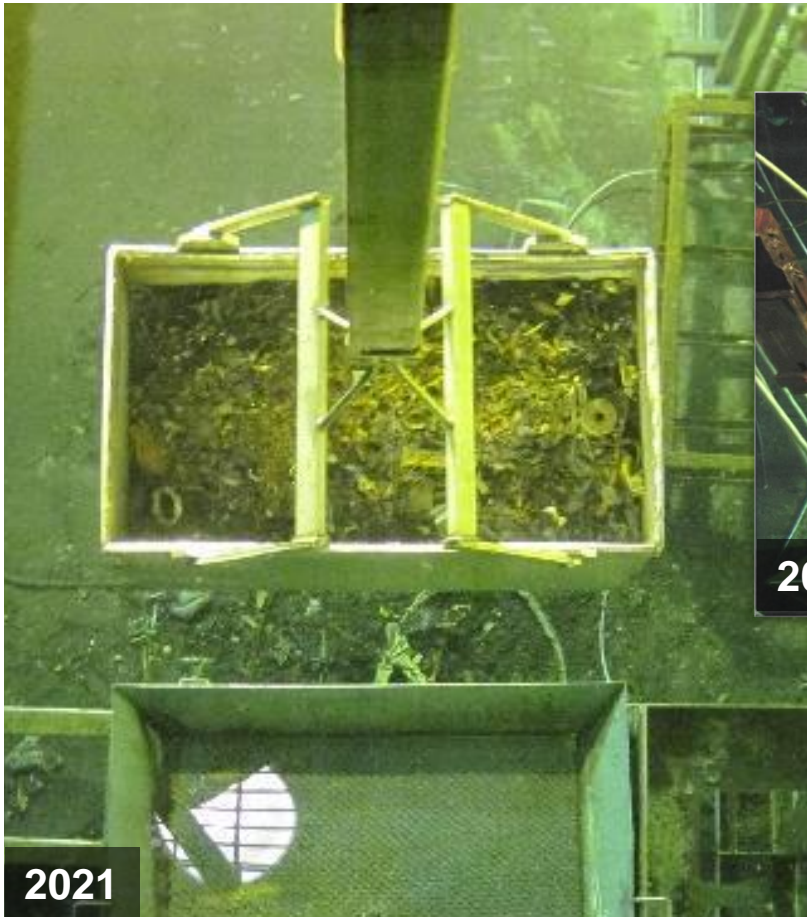
KW Basin Removal and Reactor Interim Safe Storage Process



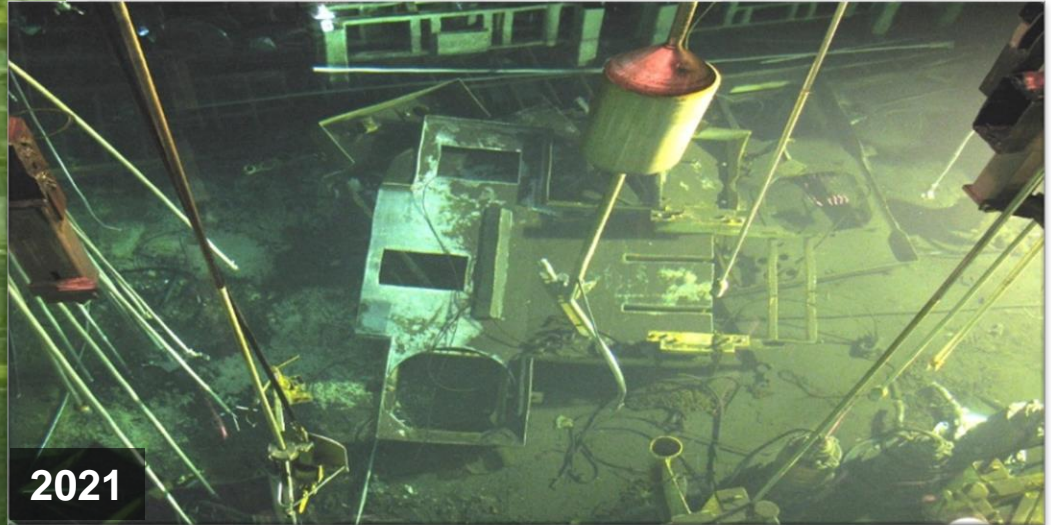
- Garnet Filter Media Retrieval (GFMR)
 - The retrieved media consists of filter media (Garnet/Sand) and retained settled solids.
 - Retrieval of filter media into four Sludge Transport and Storage Containers (STSCs) and ship to T Plant.



105KW Deactivation Activities (cont.)



Debris bin inside the 105KW basin

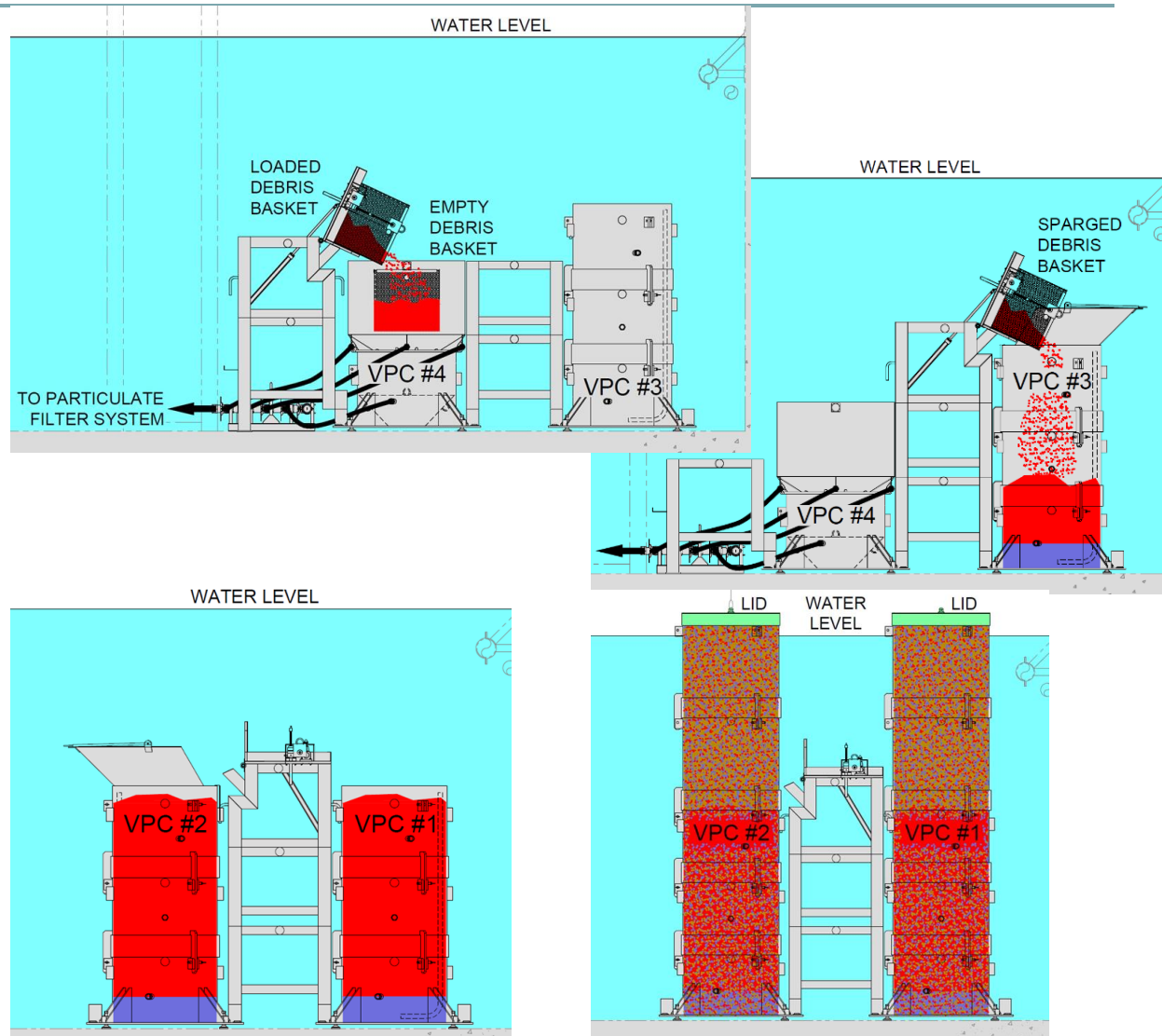


105KW Basin West Bay sorting table

105KW Deactivation Activities (cont.)

Vertical Pipe Casings

- Will hold high dose material to stage for removal after the above grade demolition of the basin.
- Design based on the successful remediation of vertical pipe units at 618-10
- Full scale mockup testing completed for grouting and auguring





2021



2021



2021

Mockup to demonstrate loading, grouting, and augering

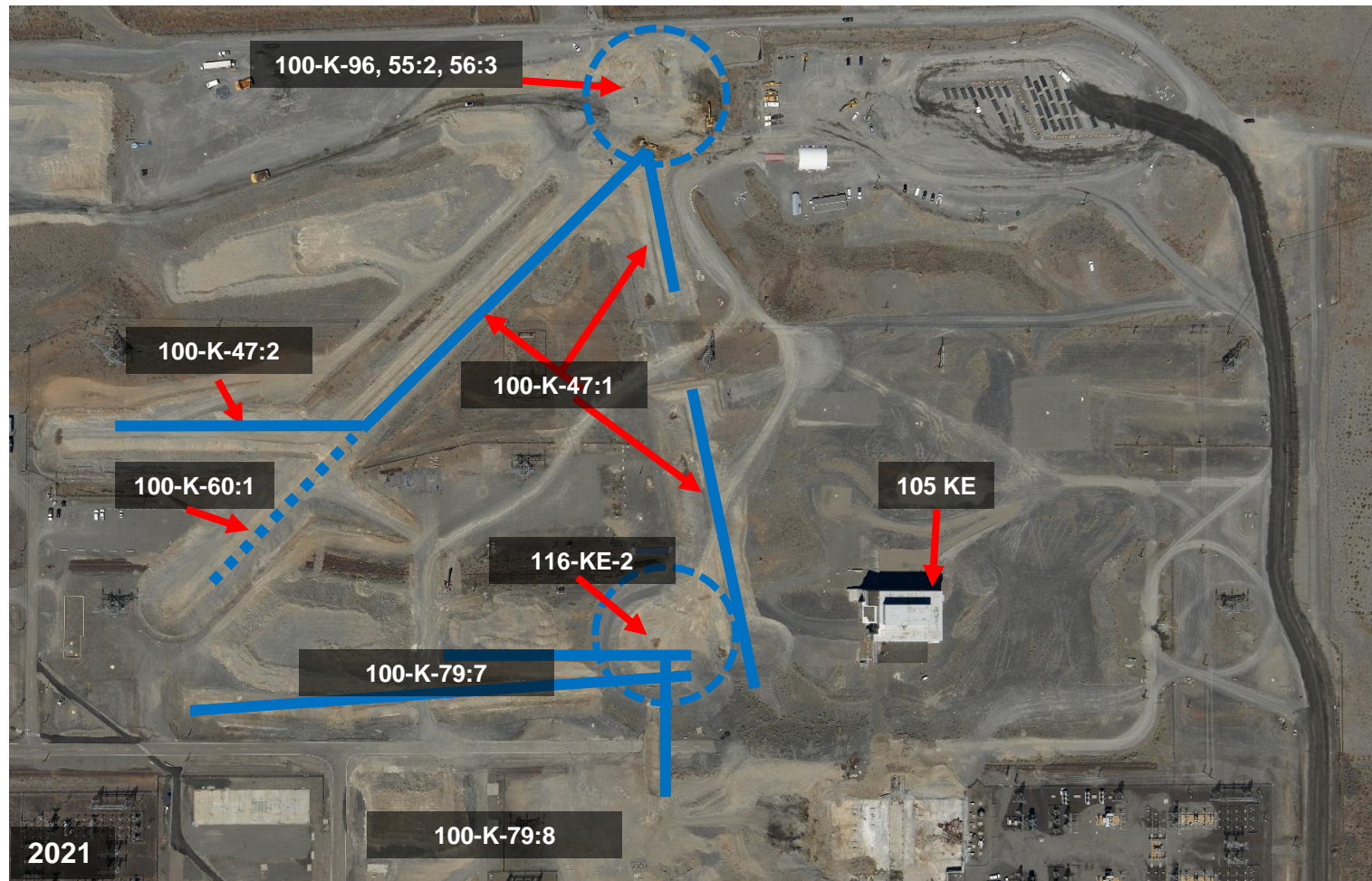
- Completed 166KE/AKE oil storage bunker demolition – February 2021
- Completed 165KE powerhouse demolition July 2021
- Preparing to start 165KW demolition by October 1st



165KE demolition



East side of 166KE



The soil remediation work is currently located on the east half of 100K

Designed to protect the reactor building from animal intrusion and weather infiltration while also providing added security against unauthorized access



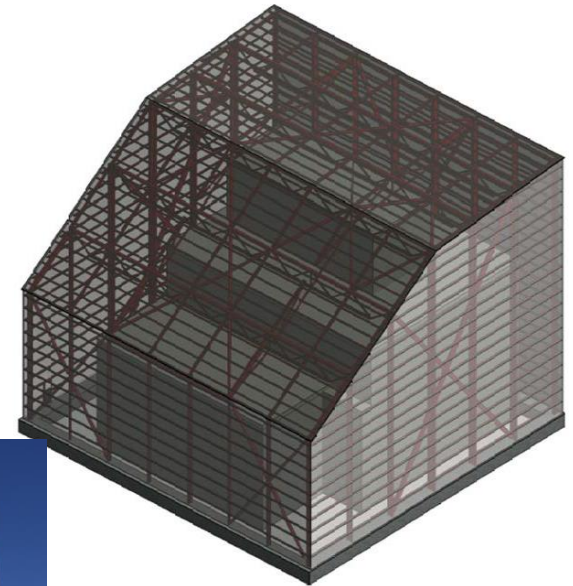
June 2020

West side of 105KE Reactor Building



June 2020

South side of 105KE Reactor Building



Rendering of 105KE Safe Storage Enclosure

Making significant progress:

- Complete Garnet Filter Media Retrieval by September 2021
- Initiate Vertical Pipe Casing loading in the basin in 2022
- Continue waste site remediation activities and facility demolition
- Initiate 105KE reactor Safe Storage Enclosure soil and foundation work

Questions?

The Hanford Reach
White Bluffs Overlooking the Columbia River